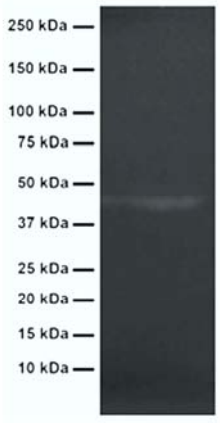
A



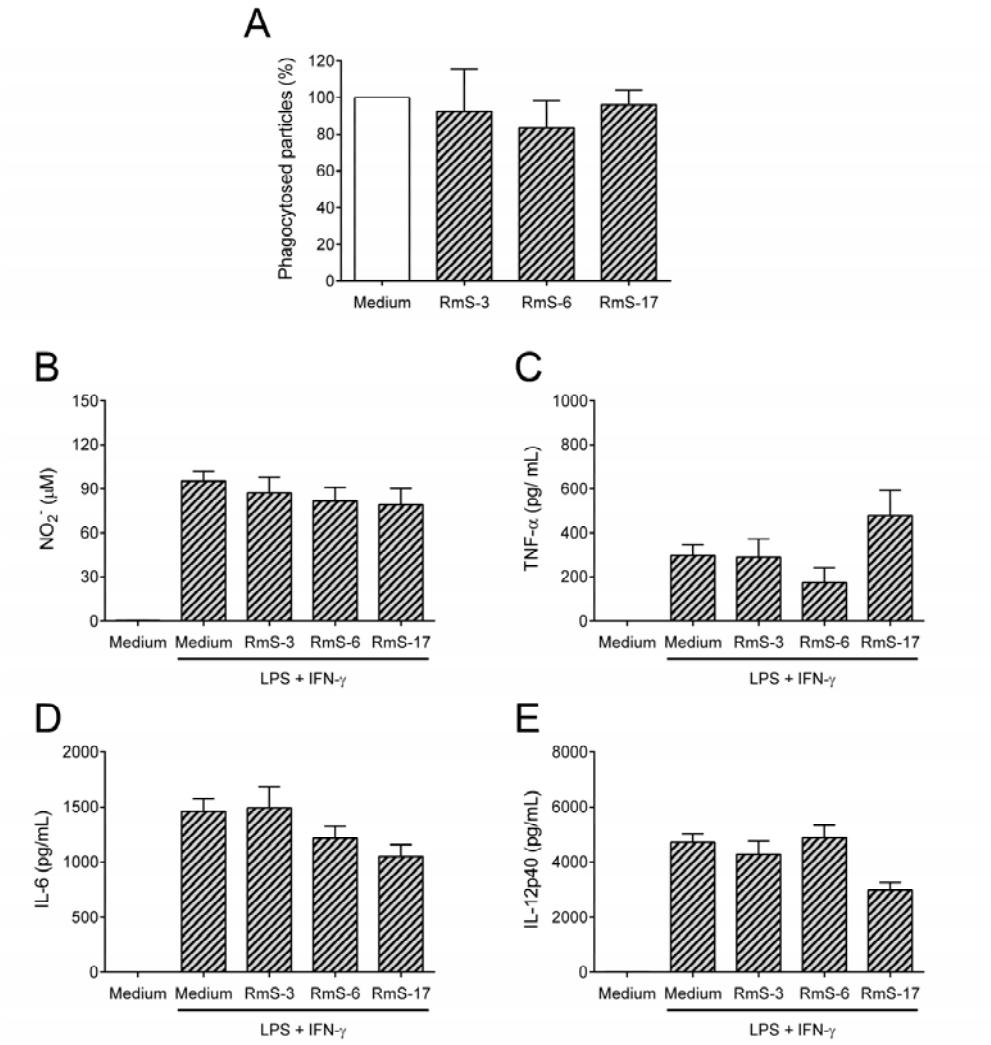
B

Locus	UniquePeptideCount	PeptideCount	SpecCount	NSAF	Coverage	ProteinScore	Description
P12346	16	16	31	0.038478127	0.2865	65.6416	Serotransferrin
P14480	14	14	27	0.048835529	0.1962	59.7884	Fibrinogen beta chain
P01946	11	11	31	0.18913896	0.662	83.3401	Hemoglobin subunit alpha-1/2
P26453	7	7	14	0.031261079	0.1495	27.2829	Basigin
A0A0G2JSW3	7	16	36	0.212174317	0.7415	78.8489	Globin a4
C0JPT7	7	7	8	0.002626384	0.0428	21.4835	Filamin A
P02680	6	6	11	0.021416097	0.1551	23.2189	Fibrinogen gamma chain
Q7TQ70	6	6	15	0.016618513	0.0665	36.9458	Ac1873
Q07936	6	6	8	0.020445509	0.2094	18.359	Annexin A2
P07150	6	6	9	0.022535856	0.1532	18.8961	Annexin A1
P09650	**4**	**4**	**6**	**0.019993349**	**0.1769**	**13.9336**	**Mast cell protease 1**
G3V6P7	3	3	3	0.001326089	0.0158	5.1914	Myosin, heavy polypeptide 9, non-muscle
P10252	2	2	4	0.014439641	0.125	9.9145	CD48 antigen
P31720	2	2	3	0.010608716	0.1061	6.2488	Complement C1q subcomponent subunit A
P20059	2	2	2	0.003766863	0.0413	4.0146	Hemopexin
P00507	2	2	2	0.004029667	0.0395	4.9357	Aspartate aminotransferase, mitochondrial

C

>P09650 Mast cell protease 1
MQALLFLMALLLPSGAGAEEIIGGVESRPH SRPYMAHLEITTERGYKATCGGFLVTRQF
VMTAAHCKGRETTVTLGVHDVSKTESTQQKIKVEKQIVHPNYNFYSNLHDIMLLKLQKKA
KVTPAVDVIPLPQPSDFLKPGKMCRAAGWGQTGVTKPTSNTLREVKQRIMDKEACKNYFH
YNYNFQVCVGSPRKIRSAYKGDSGGPLVCAGVAHGIVSYGRGDAKPPAVFTRISPYVPWI
NKVIKGKDLTSLSLHESESPS

Supplementary Fig. S1. Native rat mast cell protease 1 (rMCP-1) is the main chymotrypsin-like protease in peritoneum-derived cell extract. (A) Zymography was performed using 12% SDS-PAGE containing 0.1% casein. Gel was loaded with the protein extract containing chymotrypsin-like activity isolated from peritoneum-derived mast cells. (B) Protein extract containing chymotrypsin-like activity isolated from peritoneum-derived mast cells was separated by 12% SDS-PAGE following by Coomassie Blue staining. Band spot representing proteolytic activity on zymography was excised and subjected to trypsin digestion followed by LC-MS/MS analysis. (C) rMCP-1 sequence, highlighted peptides were identified by LC-MS/MS in the gel band with proteolytic activity (4 unique to rMCP-1 with 17% coverage).



Supplementary Fig. S2. *Rhipicephalus microplus* serpins do not affect phagocytosis or the production of inflammatory mediators by murine macrophages. For the phagocytosis assay, cells were incubated with medium only or in presence of each serpin (500 nM) followed by zymosan particles opsonized with mouse serum. Phagocytosis was evaluated by light microscopy and the percentage of phagocytosis was determined by the number of macrophages that had three or more zymosan particles in each 100 cells (A). For the production of inflammatory mediators, cells were preincubated with medium only or with each serpin (1000 nM each) for 1 h and stimulated or not with LPS plus IFN-γ (final concentration: 10 ng/ml of each). Cell culture supernatants were collected NO determination by Griess reaction (B), and TNF- α (C), IL-6 (D) and IL-12p40 (E) determination by ELISA.